

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP) RENEWAL
OFFICE OF AIR QUALITY**

**U. B. Klem Furniture Co., Inc.
3861 East Schnellville Road
St. Anthony, Indiana 47575**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 037-14091-00094	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: July 27, 2001 Expiration Date: July 27, 2006

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary wood restaurant furniture manufacturing source.

Authorized Individual:	U. Butch Klem
Source Address:	3861 East Schnellville Road, St. Anthony, Indiana 47575
Mailing Address:	P. O. Box 146, St. Anthony, Indiana 47575
General Source Phone Number:	812 - 326 - 2236
SIC Code:	2599
County Location:	Dubois County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) Two (2) surface coating spray booths, equipped with HVLP spray applicators, and dry filters for overspray control, known as booths EU-01A and EU-01B, capacity: 1,258 square feet of wood per hour, each.
- (b) Four (4) surface coating spray booths, equipped with HVLP spray applicators, and dry filters for overspray control, known as booths EU-01C through EU-01F, capacity: 629 square feet of wood per hour, each.
- (c) One (1) touch-up spray booth, equipped with HVLP spray applicators, and dry filters for overspray control, known as booth EU-01G, capacity: 60 square feet of wood per hour.
- (d) One (1) adhesive spray booth, equipped with HVLP spray applicators, and dry filters for overspray control, known as booth EU-01H, capacity: 65 square feet of wood per hour.
- (e) One (1) rollcoat area, known as EU-01I, capacity: 549 square feet of wood per hour.
- (f) One (1) brush coat area, known as EU-01J, capacity: 1,022 square feet of wood per hour.
- (g) Woodworking operations equipped with a baghouse for PM control, capacity: 1,320 pounds of wood per hour.
- (h) One (1) wood-fired boiler, rated at 2.1 million British thermal units per hour.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (c) Paved and unpaved roads and parking lots with public access.
- (d) Sawdust storage.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP) Renewal.

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM,

OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification covered the time period from the date of the first original final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contem-

poraneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ / Southwest Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,

Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Telephone No.: 812-436-2570 (Southwest Regional Office)
Facsimile No.: 812-436-2572 (Southwest Regional Office)

Failure to notify IDEM, OAQ and the Southwest Regional Office, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
- (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

- (1) That this permit contains a material mistake.
- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
- (1) A timely renewal application is one that is:
- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.
- B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]
- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions

is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration);
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), emissions of particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Since the source is not located in Bainbridge Township, pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC

4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.14 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:

- (1) This condition;
- (2) The Compliance Determination Requirements in Section D of this permit;

- (3) The Compliance Monitoring Requirements in Section D of this permit;
- (4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
- (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in

any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report covered the time period commencing on the date of issuance of original FESOP and ending on the last day of the reporting period. All subsequent reporting periods shall be based on calendar years.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Surface Coating

- (a) Two (2) surface coating spray booths, equipped with HVLP spray applicators, and dry filters for overspray control, known as booths EU-01A and EU-01B, capacity: 1,258 square feet of wood per hour, each.
- (b) Four (4) surface coating spray booths, equipped with HVLP spray applicators, and dry filters for overspray control, known as booths EU-01C through EU-01F, capacity: 629 square feet of wood per hour, each.
- (c) One (1) touch-up spray booth, equipped with HVLP spray applicators, and dry filters for overspray control, known as booth EU-01G, capacity: 60 square feet of wood per hour.
- (d) One (1) adhesive spray booth, equipped with HVLP spray applicators, and dry filters for overspray control, known as booth EU-01H, capacity: 65 square feet of wood per hour.
- (e) One (1) rollcoat area, known as EU-01I, capacity: 549 square feet of wood per hour.
- (f) One (1) brush coat area, known as EU-01J, capacity: 1,022 square feet of wood per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

The total volatile organic compound (VOC) delivered to the coating applicators in spray booths EU-01A through EU-01H as well as the rollcoat area EU-01I and the brush coat area EU-01J shall be less than 98.9 tons per twelve (12) consecutive month period. This will limit the VOC emissions from the entire source, including the wood-fired boiler and insignificant combustion units, to less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.1.2 HAPs Limitations [326 IAC 2-8-4]

- (a) The worst case single HAP delivered to the spray booths EU-01A through EU-01H as well as the rollcoat area EU-01I and the brush coat area EU-01J shall not exceed a total of ten (10) tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 do not apply.
- (b) The combination of HAPs delivered to the coating applicators in spray booths EU-01A through EU-01H as well as the rollcoat area EU-01I and the brush coat area EU-01J shall not exceed a total of twenty-five (25) tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

- Airless Spray Application
- Air Assisted Airless Spray Application
- Electrostatic Spray Application
- Electrostatic Bell or Disc Application

Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.1.4 PM₁₀ Emission Limitation [326 IAC 2-8-4]

The PM₁₀ emissions from the spray booths, EU-01A through EU-01H, shall not exceed 0.0578 pounds per hour, equivalent to 0.253 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.1.5 Particulate Matter (PM) [326 IAC 6-1]

Pursuant to 326 IAC 6-1-2(a), the particulate matter (PM) emissions from the spray booths EU-01A through EU-01H shall not exceed 0.03 grains per dry standard cubic foot.

D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.7 Volatile Organic Compounds (VOC)

Compliance with the VOC usage limitation contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

D.1.8 VOC Emissions

Compliance with Condition D.1.1 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the twelve (12) month period.

D.1.9 Hazardous Air Pollutants (HAPs)

Compliance with the HAPs usage limitations contained in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

D.1.10 Hazardous Air Pollutants (HAPs) Emissions

Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month based on the total single and combination of HAPs usage for the month.

D.1.11 Particulate Matter (PM)

In order to comply with Conditions D.1.4 and D.1.5, the dry filters for PM control shall be in operation at all times when EU-01A through EU-01H are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.12 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks while one or more of the

booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.13 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAPs usage limits and the VOC and HAPs emission limits established in Conditions D.1.1 and D.1.2.
 - (1) The amount of VOC and HAPs in each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC and HAPs usage for each month; and
 - (5) The weight of VOCs and HAPs emitted for each compliance period.
- (b) To document compliance with Condition D.1.12, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.14 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Woodworking Operations and Wood-Fired Boiler

- (g) Woodworking operations equipped with a baghouse for PM control, capacity: 1,320 pounds of wood per hour.
- (h) One (1) wood-fired boiler, rated at 2.1 million British thermal units per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 PM₁₀ Emission Limitations [326 IAC 2-8-4]

- (a) The PM₁₀ emissions from the woodworking operations shall not exceed 20.9 pounds per hour, equivalent to 91.5 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.
- (b) The PM₁₀ emissions from the wood-fired boiler shall not exceed 0.735 pounds per hour, equivalent to 3.22 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.

D.2.2 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2(a)(Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the woodworking operations shall be limited to 0.03 grains per dry standard cubic foot of exhaust air, equivalent to 11.1 pounds per hour at a flow rate of 43,030 dry standard cubic feet per minute.

D.2.3 Particulate Matter (PM) [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2(b)(Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the wood-fired boiler shall be limited to 0.6 pounds per million British thermal units heat input, equivalent 1.26 pounds per hour.

D.2.4 Nonapplicability of 326 IAC 6-3 (Process Operations)

- (a) The requirement from Condition D.2.1 from F 037-5795-00094, issued on December 9, 1996 which stated that pursuant to 326 IAC 6-3 (Process Operations), the particulate matter emissions from the woodworking operations shall not exceed 3.10 pounds per hour has not been carried over since 326 IAC 6-1 applies to this source because it is located in Dubois County and the potential source PM emissions exceed one hundred (100 tons per year). Thus, Condition D.2.1 of F 037-5795-00094 is hereby rescinded.
- (b) The requirement from Condition D.3.2 from F 037-5795-00094, issued on December 9, 1996 which stated that pursuant to 326 IAC 6-2-3, the particulate matter (PM) emissions shall be limited to 10.3 pounds per million British thermal units heat input from the 2.1 rating million British thermal units per hour wood-fired boiler has not been carried over since 326 IAC 6-1 applies to this source because it is located in Dubois County and the potential source PM emissions exceed one hundred (100 tons per year). Thus, Condition D.3.2 of F 037-5795-00094 is hereby rescinded.

D.2.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the woodworking operations and their control device.

Compliance Determination Requirements

D.2.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Within 12 months after issuance of this permit, in order to demonstrate compliance with Conditions D.2.1(a) and D.2.2, the Permittee shall perform PM and PM₁₀ testing of the woodworking operations baghouse exhaust utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.

D.2.7 Particulate Matter (PM)

In order to comply with Conditions D.2.1 and D.2.2, the baghouse for PM control shall be in operation and control emissions from the woodworking operations at all times that the woodworking processes are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.8 Visible Emissions Notations

- (a) Daily visible emission notations of the woodworking operations stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations of the wood-fired boiler stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere once per shift. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.2.9 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the woodworking operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.2.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies

the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.11 Record Keeping Requirements

- (a) To document compliance with Condition D.2.8, the Permittee shall maintain records of daily visible emission notations of the woodworking operation stack exhaust.
- (b) To document compliance with Condition D.2.8, the Permittee shall maintain records of visible emission notations of the wood-fired boiler stack exhaust once per shift.
- (c) To document compliance with Condition D.2.9, the Permittee shall maintain records of the results of the inspections required under Condition D.2.9 and the dates the vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION

Source Name: U. B. Klem Furniture Co., Inc.
Source Address: 3861 East Schnellville Road, St. Anthony, IN 47575
Mailing Address: P. O. Box 146, St. Anthony, IN 47575
FESOP No.: F 037-14091-00094

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: U. B. Klem Furniture Co., Inc.
Source Address: 3861 East Schnellville Road, St. Anthony, IN 47575
Mailing Address: P. O. Box 146, St. Anthony, IN 47575
FESOP No.: F 037-14091-00094

This form consists of 2 pages

Page 1 of 2

9 This is an emergency as defined in 326 IAC 2-7-1(12)
CThe Permittee must notify the Office of Air Quality (OAQ), within four **(4)** business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
CThe Permittee must submit notice in writing or by facsimile within two **(2)** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

FESOP Quarterly Report

Source Name: U. B. Klem Furniture Co., Inc.
Source Address: 3861 East Schnellville Road, St. Anthony, IN 47575
Mailing Address: P. O. Box 146, St. Anthony, IN 47575
FESOP No.: F 037-14091-00094
Facilities: Spray booths, EU-01A - EU-01H, and rollcoat area, EU-01I, and brush coat area, EU-01J
Parameter: Total VOC delivered to the applicators
Limit: Less than 98.9 tons per twelve (12) consecutive month period.

YEAR: _____

Month	VOC (tons)	VOC (tons)	VOC (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

FESOP Quarterly Report

Source Name: U. B. Klem Furniture Co., Inc.
Source Address: 3861 East Schnellville Road, St. Anthony, IN 47575
Mailing Address: P. O. Box 146, St. Anthony, IN 47575
FESOP No.: F 037-14091-00094
Facilities: Spray booths, EU-01A - EU-01H, and rollcoat area, EU-01I, and brush coat area, EU-01J
Parameter: Single HAP
Limit: Total less than ten (10) tons per twelve (12) consecutive month period.

YEAR: _____

Month	Single HAP (tons)	Single HAP (tons)	Single HAP (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

FESOP Quarterly Report

Source Name: U. B. Klem Furniture Co., Inc.
Source Address: 3861 East Schnellville Road, St. Anthony, IN 47575
Mailing Address: P. O. Box 146, St. Anthony, IN 47575
FESOP No.: F 037-14091-00094
Facilities: Spray booths, EU-01A - EU-01H, and rollcoat area, EU-01I, and brush coat area, EU-01J
Parameter: Combination of HAPs
Limit: Total less than twenty-five (25) tons per twelve (12) consecutive month period.

YEAR: _____

Month	Combination of HAPs (tons)	Combination of HAPs (tons)	Combination of HAPs (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: U. B. Klem Furniture Co., Inc.
Source Address: 3861 East Schnellville Road, St. Anthony, IN 47575
Mailing Address: P. O. Box 146, St. Anthony, IN 47575
FESOP No.: F 037-14091-00094

Months: _____ to _____ Year: _____

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP)

Source Name:	U. B. Klem Furniture Co., Inc.
Source Location:	3861 East Schnellville Road, St. Anthony, Indiana 47575
County:	Dubois
FESOP:	F 037-14091-00094
SIC Code:	2599
Permit Reviewer:	Frank P. Castelli

On June 14, 2001, the Office of Air Quality (OAQ) had a notice published in the Herald, Jasper, Indiana, stating that U. B. Klem Furniture Co., Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) to operate a wood restaurant furniture manufacturing source. The notice also stated that OAQ proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

Upon further review, the OAQ has decided to make the following change to the FESOP: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

Change 1:

All references to the Compliance Data Section have been changed to Compliance Branch throughout the entire permit.

Change 2:

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

-
- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, ~~except those specifically designated as not federally enforceable~~, is grounds for:
- (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	U. B. Klem Furniture Co., Inc.
Source Location:	3861 East Schnellville Road, St. Anthony, Indiana 47575
County:	Dubois
SIC Code:	2599
Operation Permit No.:	F 037-14091-00094
Permit Reviewer:	Frank P. Castelli

The Office of Air Management (OAM) has reviewed a Federally Enforceable State Operating Permit (FESOP) application from U. B. Klem Furniture Co., Inc. relating to the operation of a wood restaurant furniture manufacturing source.

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from U. B. Klem Furniture Co., Inc. relating to the operation of a wood restaurant furniture manufacturing source. The original FESOP 037-5795-00094, issued on December 9, 1996 expires on December 9, 2001.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) Two (2) surface coating spray booths, equipped with HVLP spray applicators, and dry filters for overspray control, known as booths EU-01A and EU-01B, capacity: 1,258 square feet of wood per hour, each.
- (b) Four (4) surface coating spray booths, equipped with HVLP spray applicators, and dry filters for overspray control, known as booths EU-01C through EU-01F, capacity: 629 square feet of wood per hour, each.
- (c) One (1) touch-up spray booth, equipped with HVLP spray applicators, and dry filters for overspray control, known as booth EU-01G, capacity: 60 square feet of wood per hour.
- (d) One (1) adhesive spray booth, equipped with HVLP spray applicators, and dry filters for overspray control, known as booth EU-01H, capacity: 65 square feet of wood per hour.
- (e) One (1) rollcoat area, known as EU-01I, capacity: 549 square feet of wood per hour.
- (f) One (1) brush coat area, known as EU-01J, capacity: 1,022 square feet of wood per hour.
- (g) Woodworking operations equipped with a baghouse for PM control, capacity: 1,320 pounds of wood per hour.
- (h) One (1) wood-fired boiler, rated at 2.1 million British thermal units per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

There are no new facilities proposed at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (c) Paved and unpaved roads and parking lots with public access.
- (d) Sawdust storage.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

F 037-5795-00094, issued on December 9, 1996.

All conditions from previous approvals were incorporated into this FESOP except the following:

- (a) Conditions D.2.1 and D.3.2 from F 037-5795-00094, issued on December 9, 1996 which stated that:

D.2.1 Particulate Matter

Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter emissions from the woodworking operations shall not exceed 3.10 pounds per hour.

D.3.2 Particulate Emissions Limitations for Sources of Indirect Heating

Pursuant to 326 IAC 6-2-3, the particulate matter (PM) emissions shall be limited to 10.3 pounds per million British thermal units heat input from the 2.1 million British thermal units per hour wood-fired boiler.

have not been carried over because Dubois County is a listed county in 326 IAC 6-1-7. Since both facilities are not specifically listed in 326 IAC 6-1-9, the facilities are subject to the requirements of 326 IAC 6-1-2 because the source's potential PM emissions exceed one hundred (100) tons per year or the actual PM is ten (10) tons or more per year.

- (b) The FESOP limits of less than 8.25 and 22 tons per twelve (12) consecutive month period for a single and combination of HAPs have been changed by IDEM, OAQ to less than ten (10) and twenty-five (25) tons per twelve (12) consecutive month period, respectively. In addition the VOC limit of 89.32 tons per twelve (12) consecutive month period has been increased to less than 98.9 tons per twelve (12) consecutive month period. The 98.9 ton VOC limit allows for the revised unlimited VOC potential emissions of 0.855 tons per year

from the wood-fired boiler and 0.255 tons per year from the insignificant natural gas combustion ($100 - 0.855 - 0.255$ tons per year = 98.9 tons per year). The potential VOC emissions from the wood-fired boiler have been revised due to a change in the AP-42 emission factors.

All other conditions from the previous FESOP were incorporated into this FESOP.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP renewal application for the purposes of this review was received on March 7, 2001. The application was received timely, more than nine (9) months before the December 9, 2001 expiration of the original FESOP.

Emission Calculations

See pages 1 through 8 of Appendix A of this document for detailed emissions calculations for the surface coating and wood-fired boiler emissions. The potential emissions from the woodworking operations are as follows:

The PM emissions from the woodworking operations are controlled by a single baghouse dust collector. The potential emissions along with the allowable emissions are summarized below:

Percent Collection Efficiency = 99.79%
Actual Saw Dust Collected in 2082.5 hrs = 162,000 lbs/yr

Potential particulate matter emission rate before controls:

Potential PM (lbs/yr) = $(162,000 \text{ lb/yr})(8,760 \text{ hr/yr}) / (2,082.5 \text{ hr/yr})(1/0.9979) = 682,882 \text{ lbs/yr}$

Potential PM = 341 tons per year

Potential PM after controls = 0.716 tons per year

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

The source, issued a FESOP on December 9, 1996 has opted to continue with their FESOP status, rather than applying for a Part 70 Operating Permit. Therefore, the following table also reflects the PTE after all FESOP limitations.

Pollutant	Potential To Emit (tons/year)
PM	4.65
PM ₁₀	4.54
SO ₂	0.249
VOC	less than 100
CO	9.51
NO _x	8.78

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
Single HAPs	less than 10
TOTAL	less than 25

This source, otherwise required to obtain a Title V permit, agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source was issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8. The source will continue to comply with the requirements of 326 IAC 2-8, FESOP.

Actual Emissions

No previous emission data has been received from the source.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

	Limited PTE (tons/year)						
Process/ facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Surface Coating Booths	0.253	0.253	0.00	less than 98.9	0.000	0.000	single less than 10 and total less than 25.0
Wood-Fired Boiler	5.52	3.22	0.221	0.855	5.61	4.14	negligible

	Limited PTE (tons/year)						
Process/ facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Woodworking Operations	48.5	less than 91.5	0.00	0.00	0.00	0.00	0.00
Insignificant Activities	5.0	5.0	0.028	0.255	3.90	4.64	negligible
Total	59.3	less than 100	0.249	less than 100	9.51	8.78	single less than 10 and total less than 25.0

- Notes: (a) The PM values for the wood-fired boiler and the woodworking operations reflect the allowable emissions pursuant to 326 IAC 6- 1 of 0.60 pounds per million British thermal units heat input and 0.03 grains per dry standard cubic foot of outlet air, respectively, equivalent to 1.26 pounds per hour for the wood-fire boiler and 11.1 pounds per hour for the wood-working operations at a flow rate of 43,030 dry standard cubic feet per minute.
- (b) The PM₁₀ emissions of less than 91.5 tons per year, equivalent to 20.9 pounds per hour, for woodworking operations reflect the balance of the allowable PM₁₀ emissions of less than 100 tons per year for the entire source pursuant to 326 IAC 2-8.

County Attainment Status

The source is located in Dubois County.

Pollutant	Status
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Dubois County has been designated as attainment or unclassifiable for ozone.
- (b) Dubois County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

- (a) The wood-fired boiler is still not subject to 40 CFR Part 60.40, Subpart Dc (Standards of Performance for Small Industrial Commercial-Institutional Steam Generating Units) because the rating of the boiler is less than ten (10) million British units per hour.
- (b) The coating booths are still not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Subpart JJ, 40 CFR Part 63.800 because the HAPs are limited to less than the major source HAPs levels of ten (10) and twenty-five (25) tons per year for single and combined HAPs, respectively.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Dubois County and the potential to emit VOC is still less than one hundred (100) tons per year. The source is not one of the twenty-eight (28) listed sources and its potential to emit PM₁₀ is less than one hundred (100) tons per year, including fugitive emissions, therefore, 326 IAC 2-6 still does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM₁₀, SO₂, VOC, CO and NO_x shall be limited to less than one hundred (100) tons per year. In addition, the amount of a single HAP shall be limited to less than ten (10) tons per year and the combination of all HAPs shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

In order to comply with the aforementioned emission limits, the total VOC delivered to the applicators including solvents from the surface coating operations shall be limited to 98.9 tons per twelve (12) consecutive month period. In addition, the PM₁₀ emissions from the woodworking operations shall be less than 90.5 tons per year, equivalent to 20.9 pounds per hour.

326 IAC 5-1 (Opacity Limitations)

The source is not located in Bainbridge Township, therefore, pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-1 (Nonattainment area limitations)

- (a) The 2.1 million British thermal units per hour rated wood-fired boiler is subject 326 IAC 6-1. Pursuant to 326 IAC 6-1(b)(3), the particulate matter (PM) emissions shall be limited to 0.60 pounds per million British thermal units heat input. The source, built before September 21,

1983, complies with this rule since the potential PM emissions as shown on page 5 of Appendix A are 3.59 tons per year, equivalent to 0.820 pounds per hour, equivalent to 0.390 pounds per million British thermal units heat input.

Pursuant to 326 IAC 6-2-1(e), if any limitation established by this rule is inconsistent with the applicable limitation contained in 326 IAC 6-1, then the limitations pursuant to 326 IAC 6-1 prevail.

- (b) The woodworking operations are subject to 326 IAC 6-1. Pursuant to 326 IAC 6-1(a), the particulate matter (PM) emissions shall be limited to 0.03 grains per dry standard foot of outlet air equivalent to 48.5 tons per year at a flow rate of 43,030 standard cubic feet of outlet air per minute. The operations comply with this rule since the potential PM emissions after control are 0.760 tons per year, equivalent to 0.174 pounds per hour, equivalent to 0.0005 grains per dry standard foot of outlet air at a flow rate of 43,030 standard cubic feet per minute.
- (c) The surface coating operations are also subject to 326 IAC 6-1. Pursuant to 326 IAC 6-1(a) the particulate matter (PM) emissions shall be limited to 0.03 grains per dry standard foot of outlet air.

326 IAC 8-2-12 (Surface coating emission limitations: wood furniture and cabinet coating)

Pursuant to 326 IAC 8-2-12, the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

- Airless Spray Application
- Air Assisted Airless Spray Application
- Electrostatic Spray Application
- Electrostatic Bell or Disc Application
- Heated Airless Spray Application
- Roller Coating
- Brush or Wipe Application
- Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

The rollcoating and brushing application methods as well as the HVLP spray applicators used on wood are in compliance with this rule.

State Rule Applicability - Insignificant Activities

There are no insignificant activities with applicable rules at this source.

Testing Requirements

Testing of the woodworking operations baghouse for compliance with the PM emission rate of 0.03 grains per dry standard cubic foot of exhaust air pursuant to 326 IAC 6-1 and PM₁₀ of less than 20.9 pounds per hour pursuant to 326 IAC 2-8-4.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

- (a) The woodworking operations have applicable compliance monitoring conditions as specified below:
 - (1) Daily visible emissions notations of the woodworking baghouse exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
 - (2) An inspection shall be performed each calendar quarter of all bags controlling the operations at this source when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.
 - (3) In the event that bag failure has been observed:
 - (A) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be

devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion.

- (B) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the woodworking processes must operate properly to ensure compliance with 326 IAC 6-1 and 326 IAC 2-8 (FESOP).

- (b) The eight (8) surface coating booths that have dry filters for overspray control, EU-01A through EU-01H, have applicable compliance monitoring conditions as specified below:
- (1) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating line 4 Stack 001 while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
 - (2) Monthly inspections shall be performed of the coating emissions from the eight (8) surface coating booths, EU-01A through EU-01H, for the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
 - (3) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the coating process must operate properly to ensure compliance with 326 IAC 6-1 and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this wood restaurant furniture manufacturing source shall be subject to the conditions of the attached proposed FESOP Renewal No.: F 037-14091-00094.

**Appendix A: State Potential Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: U.B. Klem Furniture Co., Inc.
Address City IN Zip: 3861 E. Schnellville Rd., St. Anthony, IN 47575
FESOP: F 037-14091
Plt ID: 037-00094
Reviewer: Frank P. Castelli
Date: March 7, 2001

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential tons per year	lb VOC /gal solids	Transfer Efficiency
Sap Booth																
Black Base Coat	8.2	69.72%	0.0%	69.7%	0.0%	21.00%	0.000008	1258.0	5.72	5.72	0.06	1.38	0.25	0.03	27.22	75%
Quasar Oil Oak	7.2	99.10%	0.0%	99.1%	0.0%	0.70%	0.000288	1258.0	7.14	7.14	2.59	62.04	11.32	0.03	1019.31	75%
9000 Oak Toner	7.2	96.60%	0.0%	96.6%	0.0%	2.00%	0.000092	1258.0	6.96	6.96	0.80	19.32	3.53	0.03	347.76	75%
Orange Dye Concentration	7.6	97.02%	0.0%	97.0%	0.0%	2.00%	0.000010	1258.0	7.35	7.35	0.09	2.22	0.41	0.00	367.71	75%
Durostain Binder	7.5	81.53%	0.0%	81.5%	0.0%	13.00%	0.000001	1258.0	6.15	6.15	0.01	0.19	0.03	0.00	47.29	75%
Wipe Stain Booth																
Russet-Honey Wiping Stain	7.8	74.54%	0.7%	73.8%	0.7%	14.00%	0.000191	1258.0	5.80	5.76	1.38	33.21	6.06	0.52	41.14	75%
Honey Pine Nustain	7.5	92.79%	0.0%	92.8%	0.0%	4.00%	0.000036	1258.0	6.99	6.99	0.32	7.59	1.39	0.03	174.68	75%
Mahogany Dip Stain	7.7	75.68%	0.8%	74.9%	0.8%	17.00%	0.000140	1258.0	5.81	5.77	1.02	24.37	4.45	0.36	33.92	75%
Brittany Wiping Stain	7.5	82.66%	2.6%	80.1%	2.3%	11.00%	0.000124	1258.0	6.15	6.00	0.94	22.48	4.10	0.22	54.59	75%
Burnt Umber Synthetic	11.1	20.75%	0.0%	20.8%	0.0%	68.00%	0.000005	1258.0	2.29	2.29	0.01	0.35	0.06	0.06	3.37	75%
Reducer	6.8	100.00%	0.0%	100.0%	0.0%	0.00%	0.000008	1258.0	6.80	6.80	0.07	1.64	0.30	0.00	N/A	75%
Sealer #1 Booth																
Vinyl Sealer	7.6	81.11%	0.0%	81.1%	0.0%	14.00%	0.000270	629.0	6.16	6.16	1.05	25.13	4.59	0.27	44.03	75%
Sealer Catalyst	8.7	40.95%	0.0%	41.0%	0.0%	47.00%	0.000001	629.0	3.56	3.56	0.00	0.03	0.01	0.00	7.58	75%
RTS	7.6	81.01%	0.0%	81.0%	0.0%	14.08%	0.000270	629.0	6.16	6.16	1.05	25.09	4.58	0.27	43.73	75%
Resistovar Sealer	7.7	74.55%	0.0%	74.6%	0.0%	19.00%	0.000610	629.0	5.70	5.70	2.19	52.52	9.58	0.82	30.02	75%
Sealer Catalyst	8.7	40.95%	0.0%	41.0%	0.0%	47.00%	0.000001	629.0	3.56	3.56	0.00	0.03	0.01	0.00	7.58	75%
RTS	7.7	74.51%	0.0%	74.5%	0.0%	19.03%	0.000610	629.0	5.70	5.70	2.19	52.49	9.58	0.82	29.95	75%
White Primer	10.1	44.28%	0.0%	44.3%	0.0%	38.00%	0.000030	629.0	4.45	4.45	0.08	2.02	0.37	0.12	11.72	75%
Low Odor Electrostatic	7.4	100.00%	0.0%	100.0%	0.0%	0.00%	0.000010	629.0	7.35	7.35	0.05	1.11	0.20	0.00	N/A	75%
RTS	9.2	62.58%	0.0%	62.6%	0.0%	25.52%	0.000040	629.0	5.74	5.74	0.14	3.47	0.63	0.09	22.49	75%
White Basecoat	9.3	57.90%	0.0%	57.9%	0.0%	18.00%	0.000010	629.0	5.38	5.38	0.03	0.81	0.15	0.03	29.92	75%
Black Basecoat	8.2	69.72%	0.0%	69.7%	0.0%	21.00%	0.000020	629.0	5.72	5.72	0.07	1.73	0.32	0.03	27.22	75%
Sealer #2 Booth																
Vinyl Sealer	7.6	81.11%	0.0%	81.1%	0.0%	14.00%	0.000270	629.0	6.16	6.16	1.05	25.13	4.59	0.27	44.03	75%
Catalyst	8.7	40.95%	0.0%	41.0%	0.0%	47.00%	0.000001	629.0	3.56	3.56	0.00	0.03	0.01	0.00	7.58	75%
RTS	7.6	81.01%	0.0%	81.0%	0.0%	14.08%	0.000270	629.0	6.16	6.16	1.05	25.09	4.58	0.27	43.73	75%
Resistovar Sealer	7.7	74.55%	0.0%	74.6%	0.0%	19.00%	0.000610	629.0	5.70	5.70	2.19	52.52	9.58	0.82	30.02	75%
Catalyst	8.7	40.95%	0.0%	41.0%	0.0%	47.00%	0.000001	629.0	3.56	3.56	0.00	0.03	0.01	0.00	7.58	75%
RTS	7.7	74.51%	0.0%	74.5%	0.0%	19.03%	0.000610	629.0	5.70	5.70	2.19	52.49	9.58	0.82	29.95	75%
Topcoat #1 Booth																
30 Sheen Lacquer	7.7	73.08%	0.0%	73.1%	0.0%	20.00%	0.000190	629.0	5.63	5.63	0.67	16.14	2.95	0.27	28.14	75%
Resistovar II Topcoat 30 Sheen	7.8	65.17%	0.0%	65.2%	0.0%	28.00%	0.000580	629.0	5.08	5.08	1.85	44.51	8.12	1.09	18.15	75%
Sealer Catalyst	8.7	40.95%	0.0%	41.0%	0.0%	47.00%	0.000001	629.0	3.56	3.56	0.00	0.03	0.01	0.00	7.58	75%
RTS	7.8	65.14%	0.0%	65.1%	0.0%	28.02%	0.000580	629.0	5.08	5.08	1.85	44.49	8.12	1.09	18.13	75%
Resistovar II Topcoat 60 Sheen	7.8	65.40%	0.0%	65.4%	0.0%	28.00%	0.000260	629.0	5.10	5.10	0.83	20.02	3.65	0.48	18.22	75%
Catalyst	8.7	40.95%	0.0%	41.0%	0.0%	47.00%	0.000001	629.0	3.56	3.56	0.00	0.03	0.01	0.00	7.58	75%
RTS	7.8	65.34%	0.0%	65.3%	0.0%	28.05%	0.000260	629.0	5.10	5.10	0.83	20.00	3.65	0.48	18.17	75%
Lacquer Topcoat 80 Sheen	7.6	73.77%	0.0%	73.8%	0.0%	20.00%	0.000220	629.0	5.61	5.61	0.78	18.62	3.40	0.30	28.03	75%
High Solids Lacquer Full Gloss	7.6	73.95%	0.0%	74.0%	0.0%	19.00%	0.000060	629.0	5.62	5.62	0.21	5.09	0.93	0.08	29.58	75%
Retarder	7.8	100.00%	0.0%	100.0%	0.0%	0.00%	0.000010	629.0	7.80	7.80	0.05	1.18	0.21	0.00	N/A	75%

State Potential Emissions

Add worst case coating to all solvents

Subtotal:

10.2	245	44.7	3.28

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

**Appendix A: State Potential Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: U.B. Klem Furniture Co., Inc.
Address City IN Zip: 3861 E. Schnellville Rd., St. Anthony, IN 47575
FESOP: F 037-14091
Plt ID: 037-00094
Reviewer: Frank P. Castelli
Date: March 7, 2001

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential tons per year	lb VOC /gal solids	Transfer Efficiency
Topcoat #2 Booth																
30 Sheen Resistovar	7.9	62.86%	0.0%	62.9%	0.0%	29.00%	0.000004	629.0	4.94	4.94	0.01	0.28	0.05	0.01	17.04	75%
Resistovar Flat Base	8.1	61.38%	0.0%	61.4%	0.0%	30.00%	0.000001	629.0	4.95	4.95	0.00	0.07	0.01	0.00	16.51	75%
RTS	7.9	62.56%	0.0%	62.6%	0.0%	29.20%	0.000005	629.0	4.94	4.94	0.01	0.36	0.07	0.01	16.93	75%
Resistovar II Topcoat 30 Sheen	7.8	65.17%	0.0%	65.2%	0.0%	28.00%	0.000580	629.0	5.08	5.08	1.85	44.51	8.12	1.09	18.15	75%
Resistovar Flat Base	8.1	61.38%	0.0%	61.4%	0.0%	30.00%	0.000001	629.0	4.95	4.95	0.00	0.07	0.01	0.00	16.51	75%
RTS	7.8	65.16%	0.0%	65.2%	0.0%	28.00%	0.000580	629.0	5.08	5.08	1.85	44.50	8.12	1.09	18.15	75%
Resistovar II Topcoat 60 Sheen	7.8	65.40%	0.0%	65.4%	0.0%	28.00%	0.000260	629.0	5.10	5.10	0.83	20.02	3.65	0.48	18.22	75%
Resistovar Flat Base	8.1	61.38%	0.0%	61.4%	0.0%	30.00%	0.000001	629.0	4.95	4.95	0.00	0.07	0.01	0.00	16.51	75%
RTS	7.8	65.39%	0.0%	65.4%	0.0%	28.01%	0.000260	629.0	5.10	5.10	0.83	20.02	3.65	0.48	18.21	75%
Lacquer Topcoat 80 Sheen	7.6	73.77%	0.0%	73.8%	0.0%	20.00%	0.000220	629.0	5.61	5.61	0.78	18.62	3.40	0.30	28.03	75%
Resistovar Flat Base	8.1	61.38%	0.0%	61.4%	0.0%	30.00%	0.000001	629.0	4.95	4.95	0.00	0.07	0.01	0.00	16.51	75%
RTS	7.6	73.72%	0.0%	73.7%	0.0%	20.04%	0.000230	629.0	5.60	5.60	0.81	19.45	3.55	0.32	27.96	75%
High Solids Lacquer Full Gloss	7.6	73.95%	0.0%	74.0%	0.0%	19.00%	0.000060	629.0	5.62	5.62	0.21	5.09	0.93	0.08	29.58	75%
Touch Up Booth																
Clear Particleboard Filler	8.8	57.10%	0.0%	57.1%	0.0%	41.80%	0.000100	60.0	5.02	5.02	0.03	0.72	0.13	0.02	12.01	75%
Adhesive Booth																
Lokweld Contact Adhesive	6.9	75.91%	0.0%	75.9%	0.0%	24.03%	0.002860	65.0	5.20	5.20	0.97	23.20	4.23	0.67	21.64	50%
Roll Coat Area																
Industrial Adhesive	9.3	100.00%	0.0%	100.0%	0.0%	47.00%	0.002070	549.0	9.25	9.25	10.51	252.29	46.04	0.00	19.68	100%
Industrial Adhesive	9.2	100.00%	0.0%	100.0%	0.0%	47.00%	0.000340	549.0	9.16	9.16	1.71	41.04	7.49	0.00	19.49	100%
Miscellaneous																
Nelsonite Wood Stabilizer	7.2	97.77%	0.0%	97.8%	0.0%	15.00%	0.000100	1022.0	7.00	7.00	0.72	17.17	3.13	0.00	46.67	100%
Booth Coatings																
Booth Coating	7.9	73.90%	0.0%	73.9%	0.0%	20.30%	0.000021	1258.0	5.83	5.83	0.15	3.70	0.67	0.00	28.72	100%
Waterbase Strip coat	8.9	47.20%	0.0%	47.2%	0.0%	43.90%	0.000004	1258.0	4.18	4.18	0.02	0.48	0.09	0.00	9.52	100%
Solvents																
Reducer	7.4	100.00%	0.0%	100.0%	0.0%	0.00%	0.000040	1258.0	7.35	7.35	0.37	8.88	1.62	0.00	N/A	100%
Wash Off Thinner	6.8	100.00%	0.0%	100.0%	0.0%	0.00%	0.000340	1258.0	6.79	6.79	2.90	69.70	12.72	0.00	N/A	100%
Lacquer Thinner	7.2	100.00%	0.0%	100.0%	0.0%	0.00%	0.000250	1258.0	7.22	7.22	2.27	54.50	9.95	0.00	N/A	100%

		Subtotal:	19.8	475	86.6	1.78
State Potential Emissions	Add worst case coating to all solvents	Grand TOTAL:	30.0	719	131	5.06

Control Technology Emissions (Combustion)

Type	Number	Capacity MMBtu/hr	Gas usage MMCF/yr	PM lb/MMCF	PM10 lb/MMCF	Emission Factors		VOC lb/MMCF	CO lb/MMCF	PM tons/yr	PM10 tons/yr	Emissions		VOC tons/yr	CO tons/yr
						SO2 lb/MMCF	NOx lb/MMCF					SO2 tons/yr	NOx tons/yr		
Catalytic			0.0	3.0	3.0	0.6	100.0	5.3	35.0	0.0	0.0	0.0	0.0	0.0	0.0
Thermal			0.0	3.0	3.0	0.6	140.0	2.8	20.0	0.0	0.0	0.0	0.0	0.0	0.0
Total			0.0							0.0	0.0	0.0	0.0	0.0	0.0
										Control Efficiency		Controlled	Controlled	Controlled	Controlled
										VOC	PM	VOC pounds	VOC pounds	VOC	Particulate
										0.95		per hour	per day	tons/yr	tons/yr
										Controlled TOTAL:	30.0	719	131	0.253	

Controlled Emissions due to Surface Coating Operations and Controls

HAP Emission Calculations

Company Name: U.B. Klem Furniture Co., Inc.
Address City IN Zip: 3861 E. Schnellville Rd., St. Anthony, IN 47575
FESOP: F 037-14091
Pit ID: 037-00094
Reviewer: Frank P. Castelli
Date: March 7, 2001

Material	Density (lb/gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % MIBK	Weight % Formaldehyde	Weight % Ethylbenzene	Weight % Glycol Ethers	Weight % MEK	Weight % Phenol	Weight % DEHP	Weight % Hexane	Xylene Emissions (tons/yr)	Toluene Emissions (tons/yr)	MIBK Emissions (tons/yr)	Formaldehyde Emissions (tons/yr)	Ethylbenzene Emissions (tons/yr)	Glycol Ethers Emissions (tons/yr)	MEK Emissions (tons/yr)	Phenol Emissions (tons/yr)	DEHP Emissions (tons/yr)	Hexane Emissions (tons/yr)
Sap Booth																							
Black Base Coat	8.2	0.000008	1258.0	11.90%	23.85%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quasar Oil Oak	7.2	0.000288	1258.0	0.00%	50.42%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	5.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9000 Oak Toner	7.2	0.000092	1258.0	2.14%	34.60%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.08	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Orange Dye Concentration	7.6	0.000010	1258.0	0.00%	0.00%	0.00%	0.00%	0.00%	97.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00
Durostain Binder	7.5	0.000001	1258.0	19.00%	27.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wipe Stain Booth																							
Russet-Honey Wiping Stain	7.8	0.000191	1258.0	7.00%	0.00%	0.00%	0.00%	0.00%	1.06%	0.00%	0.00%	0.00%	0.00%	0.57	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00
Honey Pine Nustain	7.5	0.000036	1258.0	2.00%	54.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.03	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mahogany Dip Stain	7.7	0.000140	1258.0	66.39%	0.00%	1.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.94	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Brittany Wiping Stain	7.5	0.000124	1258.0	32.00%	0.00%	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.00%	1.64	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
Burnt Umber Synthetic	11.1	0.000005	1258.0	14.00%	0.00%	0.00%	0.00%	6.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Reducer	6.8	0.000008	1258.0	7.62%	3.81%	0.00%	0.00%	0.00%	0.00%	43.33%	0.00%	0.00%	0.00%	0.02	0.01	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00
Sealer #1 Booth																							
Vinyl Sealer	7.6	0.000270	629.0	33.66%	3.99%	6.73%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.90	0.23	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sealer Catalyst	8.7	0.000001	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RTS	7.6	0.000270	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resistovar Sealer	7.7	0.000610	629.0	27.00%	10.00%	7.00%	0.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.47	1.29	0.90	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Sealer Catalyst	8.7	0.000001	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RTS	7.7	0.000610	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
White Primer	10.1	0.000030	629.0	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Low Odor Electrostatic	7.4	0.000010	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	9.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
RTS	9.2	0.000040	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
White Basecoat	9.3	0.000010	629.0	10.92%	22.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.03	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Black Basecoat	8.2	0.000020	629.0	11.90%	23.85%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sealer #2 Booth																							
Vinyl Sealer	7.6	0.000270	629.0	33.66%	3.99%	6.73%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.90	0.23	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Catalyst	8.7	0.000001	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RTS	7.6	0.000270	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resistovar Sealer	7.7	0.000610	629.0	27.00%	10.00%	7.00%	0.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.47	1.29	0.90	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Catalyst	8.7	0.000001	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RTS	7.7	0.000610	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Topcoat #1 Booth																							
30 Sheen Lacquer	7.7	0.000190	629.0	8.77%	22.52%	20.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.35	0.91	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resistovar II Topcoat 30 Sheen	7.8	0.000580	629.0	30.79%	0.00%	0.00%	0.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.84	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Sealer Catalyst	8.7	0.000001	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RTS	7.8	0.000580	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resistovar II Topcoat 60 Sheen	7.8	0.000260	629.0	30.72%	0.00%	0.00%	0.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.72	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Catalyst	8.7	0.000001	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RTS	7.8	0.000260	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lacquer Topcoat 80 Sheen	7.6	0.000220	629.0	8.85%	22.74%	20.94%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.41	1.05	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High Solids Lacquer Full Gloss	7.6	0.000060	629.0	6.28%	25.45%	0.00%	0.00%	0.00%	0.00%	1.03%	0.00%	0.00%	0.00%	0.08	0.32	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Retarder	7.8	0.000010	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total State Potential Emissions

Page Subtotal:	(tons/yr):	15.2	10.5	2.87	0.150	0.018	0.526	0.143	0.002	0.000	0.000
	(lb/hr):	3.46	2.40	0.655	0.034	0.004	0.120	0.033	0.001	0.000	0.000
	(g/sec):	0.436	0.302	0.083	0.004	0.001	0.015	0.004	0.0001	0.000	0.000

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

HAP Emission Calculations

Company Name: U.B. Klem Furniture Co., Inc.
 Address City IN Zip: 3861 E. Schnellville Rd., St. Anthony, IN 47575
 FESOP: F 037-14091
 Pit ID: 037-00094
 Reviewer: Frank P. Castelli
 Date: March 7, 2001

Material	Density (lb/gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % MIBK	Weight % Formaldehyde	Weight % Ethylbenzene	Weight % Glycol Ethers	Weight % MEK	Weight % Phenol	Weight % DEHP	Weight % Hexane	Xylene Emissions (tons/yr)	Toluene Emissions (tons/yr)	MIBK Emissions (tons/yr)	Formaldehyde Emissions (tons/yr)	Ethylbenzene Emissions (tons/yr)	Glycol Ethers Emissions (tons/yr)	MEK Emissions (tons/yr)	Phenol Emissions (tons/yr)	DEHP Emissions (tons/yr)	Hexane Emissions (tons/yr)
Topcoat #2 Booth																							
30 Sheen Resistovar	7.9	0.000004	629.0	14.00%	0.00%	0.00%	0.15%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resistovar Flat Base	8.1	0.000001	629.0	24.00%	0.00%	0.00%	0.50%	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RTS	7.9	0.000005	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resistovar II Topcoat 30 Sheen	7.8	0.000580	629.0	30.79%	0.00%	0.00%	0.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.84	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Resistovar Flat Base	8.1	0.000001	629.0	24.00%	0.00%	0.00%	0.50%	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RTS	7.8	0.000580	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resistovar II Topcoat 60 Sheen	7.8	0.000260	629.0	30.72%	0.00%	0.00%	0.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.72	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Resistovar Flat Base	8.1	0.000001	629.0	24.00%	0.00%	0.00%	0.50%	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RTS	7.8	0.000260	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lacquer Topcoat 80 Sheen	7.6	0.000220	629.0	8.85%	22.74%	20.94%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.41	1.05	0.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resistovar Flat Base	8.1	0.000001	629.0	24.00%	0.00%	0.00%	0.50%	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RTS	7.6	0.000230	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High Solids Lacquer Full Gloss	7.6	0.000060	629.0	6.25%	25.45%	0.00%	0.00%	0.00%	0.00%	1.03%	0.00%	0.00%		0.08	0.32	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Touch Up Booth																							
Clear Particleboard Filler	8.8	0.000100	60.0	3.00%	2.00%	0.00%	0.00%	0.00%	0.00%	28.00%	0.00%	0.00%	0.00%	0.01	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
Adhesive Booth																							
Lokweld Contact Adhesive	6.9	0.002860	65.0	0.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.79
Roll Coat Area																							
Industrial Adhesive	9.3	0.002070	549.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industrial Adhesive	9.2	0.000340	549.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous																							
Nelsonite Wood Stabilizer	7.2	0.000100	1022.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Booth Coatings																							
Booth Coating	7.9	0.000021	1258.0	0.00%	50.10%	0.00%	0.00%	0.00%	3.00%	21.40%	0.00%	2.40%	0.00%	0.00	0.46	0.00	0.00	0.00	0.03	0.20	0.00	0.02	0.00
Waterbase Strip coat	8.9	0.000004	1258.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Solvents																							
Reducer	7.4	0.000040	1258.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wash Off Thinner	6.8	0.000340	1258.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lacquer Thinner	7.2	0.000250	1258.0	0.00%	60.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	5.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.0	0.000610	629.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total State Potential Emissions

Page Subtotal:	(tons/yr):	3.85	8.59	0.965	0.066	0.003	0.027	0.273	0.000	0.022	2.79
	(lb/hr):	0.880	1.963	0.220	0.015	0.001	0.006	0.062	0.000	0.005	0.637
	(g/sec):	0.111	0.247	0.028	0.002	0.000	0.001	0.008	0.000	0.001	0.080

Grand TOTAL:	(tons/yr):	19.0	19.1	3.83	0.216	0.021	0.553	0.416	0.002	0.022	2.79
	(lb/hr):	4.34	4.36	0.88	0.049	0.005	0.126	0.095	0.001	0.005	0.637
	(g/sec):	0.547	0.550	0.110	0.006	0.001	0.016	0.012	0.0001	0.001	0.080

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

**Appendix A: Emission Calculations
Wood Waste Combustion in Boilers**

**Wood Boiler
Dry Wood**

Company Name: U. B. Klem Furniture Co., Inc.
Address City IN Zip: 3861 E. Schnellville Rd., St. Anthony, IN 47575
FESOP: F 037-14091
Plt ID: 037-00094
Reviewer: Frank P. Castelli
Date: March 7, 2001

Heat Input
Capacity
(MMBtu/hr)

2.1

Moisture
(%)

10.0

Wet wood has a moisture content of 20% or more

Fuel Type
Dry Wood

Uncontrolled Emissions	Pollutant						
	PM*	PM10	SO2	NOx	VOC	CO	Lead
Uncontrolled Emission Factor in lb/MMBtu	0.39	0.35	0.02	0.45	0.09	0.61	0.00
Uncontrolled Potential Emission in tons/yr	3.59	3.22	0.221	4.14	0.855	5.61	0.0004

* PM is filterable only. The emission factor for condensable is an additional 0.016 lb/MMBtu

Emission Factors for PM, PM-10, NOx and CO change based on the type of wood burned. Emission factors are as follows:

Bark: PM 0.56 lb/MMBtu, PM-10 0.20 lb/MMBtu, NOx 0.20 lb/MMBtu, CO 0.72 lb/MMBtu

Bark and Wet Wood: PM 0.56 lb/MMBtu, PM-10 0.50 lb/MMBtu, NOx 0.20 lb/MMBtu, CO 0.68 lb/MMBtu

Dry Wood: PM 0.39 lb/MMBtu, PM-10 0.50 lb/MMBtu, NOx 0.45 lb/MMBtu, CO 0.61 lb/MMBtu

Wet Wood: PM 0.43 lb/MMBtu, PM-10 0.39 lb/MMBtu, NOx 0.20 lb/MMBtu, CO 0.50 lb/MMBtu

Methodology

AP-42 Heating Value of Wood = 4500 Btu/lb

Emission Factors from AP-42, Chap. 1.6, Tables 1.6-1, 1.6-2, 1.6-3, and 1.6-4

Emission (tons/yr) = Heat Input Capacity (MMBtu/hr X Emission Factor (lb/MMBtu) X 8,760 hrs/yr X [1 ton/2000 lbs]

Appendix A: Emission Calculations
Wood Waste Combustion in Boilers
HAPs Emissions

Page 6 of 8 TSD App A

Company Name: U. B. Klem Furniture Co., Inc.
Address City IN Zip: 3861 E. Schnellville Rd., St. Anthony, IN 47575
FESOP: F 037-14091
Plt ID: 037-00094
Reviewer: Frank P. Castelli
Date: March 7, 2001

HAPs - Organics

Emission Factor in lb/MMcf	Acetaldehyde 8.5E-03	Acrolein 3.0E-03	Benzene 3.9E-03	Formaldehyde 9.6E-03	Hydrogen Chloride 2.0E-02	Styrene 1.9E-03
Potential Emission in tons/yr	8.93E-06	3.15E-06	4.10E-06	1.01E-05	2.10E-05	2.00E-06

HAPs - Metals

Emission Factor in lb/MMcf	Arsenic 2.0E-05	Chromium 9.5E-04	Lead 4.8E-05	Manganese 1.4E-03	Nickel 3.0E-05	Total HAPs
Potential Emission in tons/yr	2.10E-08	9.99E-07	5.04E-08	1.47E-06	3.15E-08	5.18E-05

Methodology is the same as page 5.

The six highest organic HAPs and the five highest metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.6.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler**

Page 7 of 8 TSD App A

**Company Name: U. B. Klem Furniture Co., Inc.
Address City IN Zip: 3861 E. Schnellville Rd., St. Anthony, IN 47575
FESOP: F 037-14091
Plt ID: 037-00094
Reviewer: Frank P. Castelli
Date: March 7, 2001**

Insignificant Activities

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

10.595

92.81

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
	**see below					
Potential Emission in tons/yr	0.088	0.353	0.028	4.64	0.255	3.90

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 8 for HAPs emissions calculations.

Appendix A: Emissions Calculations**Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: U. B. Klem Furniture Co., Inc.****Address City IN Zip: 3861 E. Schnellville Rd., St. Anthony, IN 47575****FESOP: F 037-14091****Plt ID: 037-00094****Reviewer: Frank P. Castelli****Date: March 7, 2001****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	9.745E-05	5.569E-05	3.480E-03	8.353E-02	1.578E-04

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total HAPs
Potential Emission in tons/yr	2.320E-05	5.105E-05	6.497E-05	1.763E-05	9.745E-05	0.088

Methodology is the same as page 7.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.